

Motivation and Problem Definition:

Social Network websites becomes the major environment for the users to communicate and express their opinions. But, there are some users use the social network websites in negative way like cyberbullying.

The united states government defines the Cyberbullying as a bullying that takes place over digital devices like cell phones, computers, and tablets. And, it can occur through SMS, Text, and apps, or online in social media, forums, or gaming where people can view, participate in, or share content. Cyberbullying includes sending, posting, or sharing negative, harmful, false, or mean content about someone else. It can include sharing personal or private information about someone else causing embarrassment or humiliation [1]. Moreover, multiple studies mention that cyberbullying can affect any anyone especially young people and they are at high risk. For example, National Center for Education Statistics and Bureau of Justice Statistics reported that 9% of students in grades 6–12 experienced cyberbullying [2]. Moreover, Kosciw, J. G. et al. say that 55.2% of LGBTQ students experienced cyberbullying [3].

Cyberbullying has negative consequences on victim. For example, Sourander et al. say that cyberbullying leads to serious pathological experience such as depression, self-harm and suicide attempt [4]. In addition, S. Hinduja and J. W. Patchin say that the effects of cyberbullying can start from temporary anxiety to suicide [5]. Kowalski and limber mention that 90% of the young people victims don't tell their parent about their cyberbullying experience [6].

Manual detection of cyberbullying is very difficult because the huge volume of data on social network websites. Therefore, accurate and automated detection of cyberbullying is more effective. Several studies focused mainly on the content-based feature such as profanity, pronouns, bags of word, term frequency inverse document (TFIDF) and cyberbullying words. For example, Foong and Oussalah present an automated cyberbullying system detection. The system is based on natural language processing, text mining and machine learning to detect cyberbullying. The authors employed different textual features for the classifier such TF-Idf, linguistic Inquiry, word count features and Dependency features. In addition, the authors conduct their experiment on the collected dataset from ASKfm website [7]. Little studies are focused on user-based feature. Therefore, in this project, we will focus on the user-based feature and we will try to extract new user-based feature to enhance the accuracy of detection cyberbullying.

References:

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